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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/564,759

01/13/2006

Errol William O'Brien

RR-603 PCT/US

1769

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08/06/2008

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EXAMINER

HRUSKOCI, PETER A

ART UNIT

PAPER NUMBER

1797

MAIL DATE

DELIVERY MODE

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PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 10/564,759	Applicant(s) O'BRIEN, ERROL WILLIAM	
	Examiner /Peter A. Hruskoci/	Art Unit 1797	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 22 May 2008.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-32 is/are pending in the application.
- 4a) Of the above claim(s) 16-20 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-15 and 21-32 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

The disclosure is objected to because of the following informalities: In the specification on page 6 line 7 "bottom 96" does not appear to be properly labeled in Fig. 5.

Appropriate correction is required.

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

Claims 1, 4, 5, and 12-14 rejected under 35 U.S.C. 102(e) as being anticipated by Haggerty 7,135,116. It is submitted that Haggerty disclose (see col. 2 line 47 through col. 5 line 29) the process steps recited in the instant claims.

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 2, 6, 7, 9, 22-25, 27, and 30-32 are rejected under 35 U.S.C. 103(a) as being unpatentable over Haggerty as above, and further in view of Hirth et al. 6,387,272. The claims differ from Haggerty as applied above, by reciting the presence of a specific amount of ammonia, and the use of magnesium oxide granules or powder. Hirth et al. disclose (see col. 3 line 66 through col. 5 line 20, and Example 1) that it is known in the art to utilize solid magnesium oxide to form a magnesium ammonium phosphate precipitate in a liquid manure

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having an ammonium content of 10g/l. It would have been obvious to one skilled in the art to modify the process of Haggerty by utilizing the recited amount of ammonia and solid magnesium oxide in view of the teaching of Hirth et al., to aid in precipitating ammonia and phosphate in the wastewater. The specific form and granular size of the magnesium oxide, would have been an obvious matter of process optimization to one skilled in the art, depending on the specific wastewater treated and results desired, absent a sufficient showing of unexpected results.

Claims 8 and 26 are rejected under 35 U.S.C. 103(a) as being unpatentable over Haggerty in view of Hirth et al. as above, and further in view of JP360005283A Kaneko et al.. The claims differ from the references as applied above, by reciting the process is conducted in a reaction vessel containing a bed of magnesium oxide granules. Kaneko et al. disclose (see Abstract) that it is known in the art to precipitate phosphate from wastewater by utilizing a MgO filter bed for introducing Mg-ions into the wastewater. It would have been obvious to one skilled in the art to modify the references as applied above, by utilizing the recited bed in view of the teaching of Kaneko et al., to aid in introducing magnesium oxide into the wastewater and precipitating the phosphorus.

Claims 21, 28, and 29 are rejected under 35 U.S.C. 103(a) as being unpatentable over Haggerty in view of Hirth et al. as above, and further in view of KR 2003034299A Publication Han et al.. The claims differ from the references as applied above, by reciting the presence of dissolved oxygen, and a step for introducing oxygen containing gas into the wastewater. Han et al. disclose (see Abstract) that it is known in the art to supply magnesium, phosphate, and air to wastewater in a crystallizer apparatus, to aid in precipitating struvite. It would have been obvious

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to one skilled in the art to modify the references as applied above, by introducing air into the wastewater in view of the teaching of Han et al., to aid in precipitating struvite in the wastewater.

Claims 3, 10, and 11 are rejected under 35 U.S.C. 103(a) as being unpatentable over Haggerty as above, and further in view of KR 2003034299A Publication Han et al.. The claims differ from Haggerty as applied above, by reciting the presence of dissolved oxygen, and a step for introducing oxygen containing gas into the wastewater. Han et al. disclose (see Abstract) that it is known in the art to supply magnesium, phosphate, and air to wastewater in a crystallizer apparatus, to aid in precipitating struvite. It would have been obvious to one skilled in the art to modify the process of Haggerty, by introducing air into the wastewater in view of the teaching of Han et al., to aid in precipitating struvite in the wastewater.

Applicant's election with traverse of Group I, Claims 1-15 and 21-32 is acknowledged. The traversal is on the ground the search and examination of all claims 1-32 in this application should be able to be conducted without serious burden. This is not found persuasive because a serious burden on the Examiner may be prima facie shown by either separate classification, separate status in the art, or different fields of search. The process of Group I has a separate classification and status in the art, and would require a different field of search from the treatment plant of Group II. The process claims of Group I would require the examination of different issues of patentability from the treatment plant claims of Group II. Furthermore, the inventions listed as Groups I-II do not relate to a single general inventive concept under PCT Rule 13.1 because, under PCT Rule 13.2, a special technical feature which these claims share does not define a contribution over the prior art. For example, the claims of Groups I and II

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share a source of magnesium ions as the special technical feature, which is considered to lack novelty or an inventive step in view of Haggerty as applied above.

The requirement is still deemed proper and is therefore made final.

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to /Peter A. Hruskoci/ whose telephone number is (571) 272-1160. The examiner can normally be reached on Monday through Friday from 8:00AM-5:00PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Duane Smith can be reached on (571) 272-1166. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Peter A. Hruskoci/
Primary Examiner
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8/4/08

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